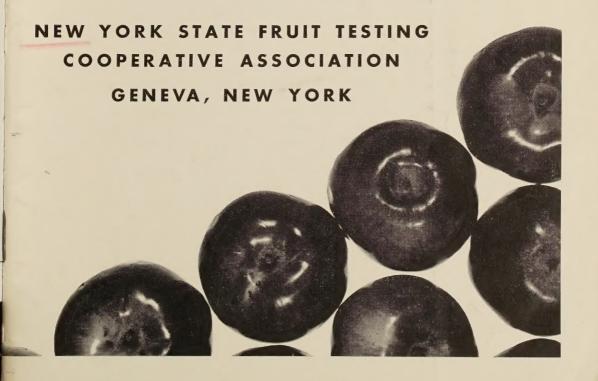




NEW FRUITS

1956-57



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OF THE

NEW YORK STATE FRUIT TESTING COOPERATIVE ASSOCIATION

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MOSTLY ORIGINATED AT THE NEW YORK STATE AGRICULTURAL EXPERIMENT STATION

ORGANIZATION AND PURPOSE OF THE NEW YORK STATE FRUIT TESTING COOPERATIVE ASSOCIATION. INC.

The New York State Fruit Testing Cooperative Association, Inc., was organized in 1918 for the purpose of introducing for testing new fruits recommended as worthy of trial by the New York State Agricultural Experiment Station. No funds have ever been appropriated for the support of this Association and therefore a sufficient charge must be made for nursery stock to cover expenses. The Association has grown steadily with a membership today of about 3,500, representing 48 States and many foreign countries.

The only requirement for membership is that the tester must have an interest in new fruits. An annual fee of \$1.00 is levied, the fiscal year commencing September first. Paid-up members are entitled to a credit of \$1.00 as a premium. Premiums are not allowed to accumulate. Each member receives the annual catalog and notification of the annual meeting. This meeting is held each year at Geneva the third Thursday of September and features a large exhibit of new fruits, conducted tours of Station plantings and a program of talks by fruit specialists.

This Association has done great service in the past in helping to determine the merits of new fruits. Members are today rendering a real service to the fruit industry by growing, testing, and reporting on these newer varieties. Unfortunately a few assume that all introductions herein listed are being recommended as commercial varieties. Such an attitude defeats the purpose of this organization. We try to give a brief description, based on available data, of the performance of these varieties at Geneva. The strong and weak points of each variety are presented. Under other conditions of soil and environment they may perform much better or not as well as with us. Progress reports are always welcome. The sum total of members' experience together with our own records will largely determine future recommendations.

RECENT INTRODUCTIONS

A thorough evaluation of a new fruit requires extensive testing under varied soil and climatic conditions. The following named varieties have shown sufficient promise at Geneva that the Experiment Station is recommending their trial on a limited scale for the purpose described:

Apples—Beacon, Crandall, Franklin, Idagold, Red Delicious (Bridgham), Red McIntosh (Boller), Red McIntosh (Cornell), Ruby, Spartan, Wellington.

See page 3.

Peaches—Coronet, Dixired, Fairhaven, Kalhaven, Summerrose. See page 12. Nectarines—Nectacrest, Nectarose. See page 11.

Grapes—Baco No. 1, Seibel 10868, Seibel 10878, Seibel 13047, Seibel 13053, Seyve Villard 5-276. See page 25.

Blueberries—Berkeley, Bluecrop, Blueray, Coville, Earliblue, Herbert. See page 25.

Raspberries-Amber. See page 28.

NUMBERED SELECTIONS

In order to give members an opportunity to help test promising selections from fruit breeding work of the New York State Agricultural Experiment Station at Geneva, the Association has propagated a number of outstanding seedlings which are still under number. Members who are interested in trying out these selections will assist the Experiment Station fruit breeders in evaluating this material.

The Geneva Experiment Station, however, must retain control over these selections until they have been proved worthy of introduction to the general public, at which time they will be named. Therefore, members will be requested to sign an agreement that they will grow the plants for test purposes only and that they will not sell, give away, or otherwise distribute plants or propagating material until the selections are named or until they are authorized to do so by the Department of Pomology of the New York State Agricultural Experiment Station. The following are available in limited quantities.

Apples New York 16884	Apricots
New York 16884 See page 6 New York 44416-6 See page 6	New York 345 See page 14
New York 50-4 See page 8	New York 346 See page 14
New York 50-6 See page 6	Nectarine
Ottawa 272 See page 6 Ottawa 292 See page 6	New York 884 See page 11
Cherries Cherries	New York 1017 See page 11
New York 591 See page 10	Grapes
New York 1495 See page 10	New York 12997 See page 22
New York 1507 See page 10	New York 15302 See page 24
New York 1510 See page 10	Raspberry
New York 1512 See page 10	New York 17861 See page 27
New York 1519 See page 10 Pears	Blackberry
New York 4885 See page 17	New York 24338 See page 28
New York 7620 See page 17	Strawberry
Plums	New York 96 See page 29
New York 826 See page 19	New York 386 See page 30
New York 981 See page 19	New York 418 See page 30

APPLES

During recent years a number of new apple varieties have been introduced by various Experiment Stations.

The Monroe introduced by the New York Station in 1949 is already being accepted by growers as a possible replacement for Baldwin. It is a heavy annual cropper, has outstanding processing quality and has acceptable dessert quality. Idared, a late keeping dessert variety and Spartan, a McIntosh type which is picked later and keeps longer than McIntosh are arousing considerable grower interest. These and other varieties listed in this catalog are showing promise of commercial value and may eventually assume commercial importance.

The following apple varieties are being offered this year and are listed in order of ripening season, from early to late.

SUMMER APPLES	S Parentage	Where Orig.	Year Introd.
Lodi Ottawa 292 Ottawa 272	Montgomery × Yellow Transparent Melba × Crimson Beauty	N. Y. Sta. Canada	1924
Wellington Red Melba Beacon	Cortland × Crimson Beauty Pate sport Malinda (open pollinated)	N. Y. Sta. Canada Minn.	$\frac{1955}{1936}$
Greendale	McIntosh X Lodi	N. Y. Sta.	1938
EARLY FALL			
Early McIntosh Red Gravenstein New York 16884	Yellow Transparent × McIntosh Mead sport Lodi × Melba	Mass. N. Y. Sta.	1923 1939
Milton Redhook	Yellow Transparent × McIntosh McIntosh × Carlton	«	1923 1938
Mid-season			
Webster Red McIntosh Red McIntosh	(Ben Davis \times Jonathan) \times (B. D. \times Jon.) Boller sport Cornell sport	N. Y. N. Y.	1938 1955 1956
Franklin Kendall Cortland	McIntosh × Delicious Zusoff × McIntosh Ben Davis × McIntosh	Ohio Sta. N. Y. Sta.	1937 1932 1915
Red Delicious	Bridgham sport		1955
Macoun Spartan	McIntosh X Jersey Black McIntosh X Yellow Newtown	" Canada	1923 1936
LATE			
Sweet Delicious	Deacon Jones X Delicious	N. Y. Sta.	1922
Newfane	**	66	1927
Melrose	Jonathan × Delicious	Ohio	1944
	•		

LATE	Parentage	Where Orig.	Year Introd.
New York 50–6 Monroe Crandall Idared Idagold Red Rome Ruby	Red Spy × Orleans Jonathan × Rome Beauty Jonathan × Rome Beauty Wagner × Jonathan Wagener × Esopus Mr. Mill's sport Gallia Beauty × Starking	N. Y. Sta. Ill. Idaho " N. Y.	1949 1951 1942 1944
CRAB APPLES	Gania Beauty & Starking	Ohio Sta.	1953
Dolgo Young America	A Russian Crab Unknown	S. Dak. Sta. N. Y.	1916
ORNAMENTAL A	PPLES		
Redfield Van Eseltine New York 50–4	Wolf River × M. niedzwetzkyana M. arnoldiana × M. spectabilis Malus Zumi × N. Y. 11932	N. Y. Sta.	1938 1937

Beacon—An early variety maturing about a week after Melba. It ripens over several weeks, hence requires about three pickings. It produces large, usually annual crops of medium sized quite attractive red-streaked fruit of fair to good quality. Unlike most early varieties, Beacon handles well and may be stored for six to eight weeks. The variety is worthy of extended trial for both early processing (sauce) and fresh market sales.

Cortland—is the leading commercial variety sent out by the Association and its popularity increases as the public becomes acquainted with its good qualities. Cortland now ranks third among the commercial varieties of New York. Its tree is medium in size, productive and an annual and early bearer. The fruit hangs better to the trees than that of its McIntosh parent. In common storage it keeps much better. The apples are large, oblate, well colored with blush and stripes and have a crisp, white-flesh that does not discolor when exposed to the air. The flesh has a pleasing sprightliness that makes it desirable for dessert, salads and culinary uses. Cortland is subject to aphid and scab injury. For best keeping quality, fruits must be harvested while hard-ripe.

Crandall—This new variety is interesting in that it is derived from the same parents as Monroe, our 1949 introduction. Crandall is of medium size, attractively colored medium red. The flesh is fine grained, crisp and juicy and is rated good for both dessert and culinary purposes. Recommended for trial planting.

Early McIntosh—resembles McIntosh in appearance but is less aromatic and more sprightly. Its tree is vigorous and productive. One of its major faults is that it sets too heavy a crop on alternate years. Severe thinning is requisite to obtain a good commercial size. Early McIntosh ripens about one week after Melba and about with the Duchess. Its main value is for the home and local markets.

Franklin—at Geneva ripens a few days after McIntosh and is a high quality, though mild flavored dessert apple. The fruit is round-conic in shape and attractively red striped with a heavy bloom. It has a tendency toward biennial bearing which may not be serious where blossom thinning sprays are used.

Greendale—its name suggests green color and it is handsome green in color like its parent, Lodi, while it is shaped like its other parent, McIntosh. The combination of these two characters has resulted in an attractive, trimly shaped, green apple. Its quality, too, is as good as its appearance—excellent for both eating and cooking. To extend the season of Lodi this sort is unsurpassed for a roadside trade which desires a good green apple late in August.

Idared—originated at the Idaho Agricultural Experiment Station from a cross between Wagener and Jonathan. It is a handsome solid red apple of good quality, maturing about a month after McIntosh. At Geneva, Idared has performed very satisfactorily and shows real promise as a late keeping dessert or general purpose apple.

Idagold—an attractive, high quality, large, yellow variety from the Idaho Station. It resulted from the cross Wagener × Esopus Spitzenburg and has performed well at Geneva. It matures about 10 days before Rome Beauty and stores well until March.

Kendall—is handsomely colored over the entire surface with dark red, covered with a thick bloom. Its season is about that of McIntosh. The apples are large, trim in outline, and when properly ripened, possess the whitish, fine-grained flesh of McIntosh. The flavor is more sprightly than that of McIntosh. For best quality it should be picked after McIntosh. Very productive.

Lodi—has rapidly become a commercial apple in those areas that grow early yellow-colored apples, such as the Yellow Transparent. Its fruits ripen a few days later than Yellow Transparent but are larger and stand up better in shipping. The tree is large and although it tends to bear biennially, can be made annually productive through proper use of blossom thinning sprays.

Macoun—is liked by many due to its crisp, white flesh and pleasing flavor. It holds up slightly better in storage than its McIntosh parent. Tree is upright until opened up by a heavy crop and is slower in coming into bearing than McIntosh. Requires thinning, otherwise fruits may be smaller than desired. Early thinning likewise induces a more even bearing. Macoun is in favor for dessert purposes. Its very tender skin and flesh render it susceptible to bruises, hence it requires very careful handling.

Melrose—is a new variety from the Ohio Experiment Station, Wooster, Ohio which has performed well at Geneva. It resulted from a cross between Jonathan and Delicious and the fruits resemble Jonathan except they are not quite so highly colored and are somewhat more oblate. Melrose is a

late keeping high quality dessert apple and is worth a trial planting where an apple of this type and season is wanted. Requires thinning to achieve size and help maintain annual cropping.

Milton—is a handsome apple of Wealthy season and sells readily on roadside markets. Its resistance to rust is an important factor in the Hudson River Valley. The tree is hardy, vigorous and an annual bearer. The fruits are pinkish red with a heavy bloom. The flesh is white, tender, crisp, juicy, and of McIntosh flavor but more sprightly.

Monroe—tree medium sized, upright-spreading, vigorous and a heavy annual bearer. Fruit large roundish-conic; color similar to Jonathan, its maternal parent. Flesh yellowish, crisp, juicy and mildly subacid; quality good. Winter apple that offers possibilities for dessert and culinary uses. Shows promise of a possible replacement for Baldwin. In processing tests Monroe has rated very high for sauce, frozen and canned slices. Monroe is somewhat subject to mildew which is readily controlled by including sulfur in the spray schedule up to petal fall.

Newfane—produces large-sized fruit of a very attractive red color. The shape is oblong-conic and the flesh tender, medium juicy, mildly flavored with a pronounced Delicious aroma. Newfane is a delicious dessert apple at Christmas time.

New York 50-6—A large, round-conic apple with a yellow ground color, splashed and striped with red. It is very firm, yellow fleshed, acid, crisp and juicy. It appears to be very productive and has promise as a late processing apple. Processors and growers who have seen this apple are very enthusiastic over its possibilities.

New York 16884—Medium to large oblong conic apple with very attractive pinkish-red streaking on yellowish green ground color and covered with a heavy, attractive white bloom. The flesh is crisp, white, juicy, slightly acid and of good quality. The season is August to September. This apple shows promise as an early general purpose apple.

New York 44416-6—(Macoun × Red Spy)—a good quality, firm fleshed, redblushed apple which matures just after McIntosh. Its firm flesh, high quality and good appearance are its chief attributes. A promising dessert variety.

Ottawa 272—(Melba × Crimson Beauty)—from the Central Experimental Farm, Ottawa, Canada. Resembles Melba but is a few days earlier in maturity. Not as large as Ottawa 292 and is somewhat milder flavored.

Ottawa 292—(Melba × Crimson Beauty)—a fine, early apple from the Central Experimental Farm, Ottawa, Canada, which matures about a week before Melba. It is large, attractively red-striped and has high quality, although somewhat sprightly. It ripens unevenly and requires at least two pickings. This selection appears to be superior to other varieties of its season.

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- Red Delicious (Bridgham)—is a fine colored sport of Delicious and appears to be identical to Delicious except in color. The color is a brilliant light over-all red, much superior to the very dark color of some of the older sports of Delicious.
- Red Gravenstein (Mead)—differs from the old Gravenstein in the solid, dark red fruits. Gravenstein is a most excellent autumn apple, but this new color sport is so much superior in appearance to any of its kin that in the future its culture alone should be recommended.
- Redhook—so named because of its very handsome dark red color and heavy bloom, attractive color being an outstanding characteristic. Sometimes the flesh of the apples is decidedly red. The fruit averages about as large as McIntosh and ripens between Milton and McIntosh. It is sprightly in flavor but highly aromatic—an excellent dessert apple for the home and road-side market.
- Red McIntosh (Boller)—is a fine strain of McIntosh, credited to Arthur Boller, Sodus, N. Y. It develops a good blush color and the fruit is firmer than regular McIntosh. In other respects it appears to be identical to McIntosh.
- Red McIntosh (Cornell)—a fine colored sport of McIntosh found September, 1954 by L. G. Klein in the Cornell Orchard, Ithaca, N. Y. It appears to be identical to regular McIntosh except for the much improved color.
- Red Melba—is a color sport of Melba from Canada. The fruit is solid red striped with bright red over pale waxy yellow—an attractive color combination.
 - It is of medium size, mildly and pleasantly flavored and highly aromatic. The season is ahead of and shorter than that of Early McIntosh, averaging about two pickings. The apples are very tender and bruise easily but are well adapted for the roadside stand and the home. Where Melba colors poorly, this red sport should be tried.
- Ruby—produces large, fairly attractive fruit of good quality for both dessert and processing. It is a particularly good keeper. May have value as a late general purpose variety.
- Spartan—A very attractive McIntosh type apple maturing about one week after McIntosh. It has firmer flesh than McIntosh and has excellent dessert quality. It keeps in storage several weeks longer than McIntosh and is recommended for trial where a McIntosh type apple, which may be picked after and stored longer than McIntosh, is wanted.
 - Sweet Delicious—fruits are flatter than those of Delicious—large and attractive in size, color, and shape, with the sweet aromatic flavor of Delicious. The variety is for home use where it will be chiefly appreciated for dessert and baking. Sweet Delicious is our best winter sweet variety.
- Webster—A large handsome red streaked apple which should become a valuable processing variety. In processing tests, Webster has rated very high and this

quality coupled with its early ripening period gives the northeastern growers a variety to compete with the southern grown York Imperials. Webster produces heavy crops and is in season from October 1st to December 15th. As it is a triploid and produces poor pollen, provisions must be made to insure ample pollination.

Wellington—is a large attractive red-streaked apple in season about a week ahead of Melba and unlike most early apples matures its fruit all at one time, hence requires only one picking. This variety appears to be superior commercially to other varieties in its season. In dessert quality this selection will rate fair to good but its fine processing qualities are its chief attribute and it shows real promise as an early commercial sauce apple.

CRAB APPLES

Dolgo—is a small, oblong, handsome red crab apple imported from Russia in 1897 by the late Professor N. E. Hansen of the South Dakota Experiment Station. The fruit is full of juice, jellies easily, and makes a rich, ruby-red jelly of beautiful color and excellent flavor. The tree is hardy, vigorous, and productive; the season early September.

Young America—produces abundantly, attractive red fruits of excellent size and quality. Jelly made from the fruit is a clear, beautiful red and splendidly flavored. The tree is especially vigorous and hardy. The season is about the middle of September. Young America and Dolgo should be planted as ornamentals as well as for their fruit.

ORNAMENTAL APPLES

New York 50-4—This is a beautiful red flowered and red leaved crab apple. It was selected as an ornamental.

Redfield—an apple for the lawn and other ornamental plantings because of its large and very dark pink flowers. The fruit is medium in size, dark deep solid red in color, with deep red flesh. The foliage is dark with a reddish green tinge early in the season. This is a very desirable ornamental.

Van Eseltine—a beautiful ornamental crab named in honor of the late originator. Buds pendulous and red, while open flowers are semi-double and pinkish white.

DWARF APPLES

There has been a great deal of interest in recent years in apples on a size controlling root system among home growers as well as commercial apple producers. In general the two most outstanding characteristics of trees on such stocks are earliness of bearing and a smaller tree which facilitates orchard operations, such as pruning, spraying and harvesting. Experimentation with some of the dwarfing and semi-dwarfing apple root stocks of the East Malling series, as E.M. IX, E.M. VII and E.M. II has shown that the combinations of varieties and root stocks listed by us will give satisfactory performance.

The E.M. IX rootstock gives a typical dwarf tree that starts bearing the

second or third year after planting. Since the root system of E.M. IX is brittle, it is recommended that trees on this stock be either supported by a stake or a trellis. Trees on this rootstock are best adapted to home gardens.

The EM. VII and E.M. II rootstocks limit growth of the variety to a lesser degree but still hasten bearing. Trees on these stocks can be grown without any special support and will reach a size one-third to one-half that of a standard tree. E.M. VII has adaptation for the home and commercial orchard, whereas E.M. II is highly satisfactory for commercial orchards.

CHERRIES

All sweet cherry varieties are self-unfruitful. Two compatible varieties must be planted near each other to provide for cross-pollination. Most varieties will successfully pollinate the other varieties, but four varieties, viz., Bing, Emperor Francis, Lambert and Napoleon will not pollinate each other and must be planted with some other variety to insure a fruit set.

All cherries are propagated on Mazzard stocks.

EARLY CHERRIE Seneca New York 1495 Early Rivers Schrecken	Unknown × Early Purple Emperor Francis × Gil Peck Early Purple (open pollinated) Unknown	Where Orig. N. Y. Sta. European	Year Introd. 1924 1872
MID-SEASON Royal Duke Vernon Guben Victor Emperor Francis New York 1507 New York 1512 Gil Peck Velvet New York 1519 Giant	Unknown Windsor (open pollinated) Unknown Windsor (open pollinated) Unknown Schmidt × Bing Schmidt × Lambert Napoleon × Giant Windsor (open pollinated) Schmidt × Lambert Unknown	Canada European Canada European N. Y. Sta. " Canada N. Y. Sta. Burbank	1937 1925 ————————————————————————————————————
LATE New York 1510 Noble Hedelfingen New York 591	Schmidt × Lambert Unknown "Oswego × Giant	N. Y. Sta. European N. Y. Sta.	

Emperor Francis—is a large, high-quality cherry of the Napoleon type. The cherries have been less subject to cracking than those of Napoleon. The color of the two fruits is similar, except that those of Emperor Francis are a little redder and become darker. All in all, Emperor Francis promises to be one of the best main-crop sweet cherries.

Giant—bears cherries attractive in size and color; the crop is late, ripening just before Lambert. The quality is splendid and fruits are less subject to cracking than those of Bing. The tree is large, vigorous and very productive. Giant is one of Burbank's most notable introductions.

- Gil Peck—was named in honor of the late Professor Gilbert W. Peck of Cornell at the request of the Indians of the Six Nations. The fruit is large, dark purplish black, similar in shape to Giant and as good in quality. It is firm fleshed, juicy, sweet and richly flavored. The season is late midseason. This variety may crack but not as badly as Lambert.
- Hedelfingen—ripens just ahead of Windsor and Lambert. Its performance in New York, Canada and Europe justifies its being recommended as a large firm-fleshed, high quality, late, black cherry of the Lambert type. The fruit is more resistant to cracking than most cherries.
- New York 591—is the best sweet cherry to follow Lambert. It ripens two weeks later than Lambert. It is a medium-sized, black cherry with flesh which is slightly tough until it is dead ripe. The flavor is sweet and good. Little cracking has been observed in this variety. The tree is very vigorous and moderately productive.
- New York 1495—is a large, firm-fleshed, black cherry which ripens before Early Rivers. It is the earliest firm-fleshed type, being more than a week earlier than Schrecken. The quality is very good and it is the best in its season.
- New York 1507—is a productive variety ripening about Schmidt season. The fruit is medium to large, attractive and black in color. The flesh is sweet, firm and crisp and the quality is very good.
- New York 1510—is very productive and ripens about five days after Schmidt. It is very large, attractive and glossy black with a firm black mildly sweet flesh. The quality is good.
- New York 1512—has a dark mahogany color. The flesh is firm, crisp and juicy with a sweet and sprightly flavor which is very good. It is larger and more attractive, but probably more susceptible to brown rot and cracking than Schmidt with which it ripens.
- New York 1519—is a productive cherry ripening a few days later than Schmidt. The fruit is large and very dark in color. The flesh is firm, crisp, juicy, sweet and of good quality. This cherry appears to be more resistant to cracking than most varieties.
- Noble—is a late dark-colored firm-fleshed sweet cherry for market and home use. Its season of ripening is between Schmidt and Hedelfingen. The fruit is large, heart-shaped, slightly flattened at the apex, dark-purplish red and of high quality. The fruits seem to crack less than those of several of the late sweet cherries. It is an old English variety and has performed well at Geneva.
- Royal Duke—has long been grown in Europe to follow May Duke. The trees are hardy, healthy, and productive. The cherries are large, handsome, dark red, well scattered along the branches, pleasantly flavored, refreshing, and very good in quality. Royal Duke has a place in home orchards for road-side and local markets.

Seneca—is a remarkably early cherry, being more than two weeks earlier than Black Tartarian. Its main difficulty is that unless protected by an openmeshed cloth the fruit may be destroyed by birds. The cherries resemble those of Black Tartarian in being round-cordate, purple-black, with juicy melting flesh, and a rich, sweet flavor. The pit is free and the skin does not crack. The tree is very vigorous, productive, and has an upright-spreading growth.

Vernon—the fruit is large, firm-fleshed, black and ripens just before Bing.

The tree is vigorous and productive. The variety has proven to be promising in New York.

Victor—the fruit resembles that of Napoleon and ripens midway between Governor Wood and Napoleon. The cherries are large, medium firm-fleshed, light-colored and of excellent quality. The tree is large, vigorous and productive. Victor is a splendid new sweet cherry.

NECTARINES

As a class nectarines are more susceptible to brown rot than peaches. However, the important point in the control of brown rot is thorough control of the insects whose feeding punctures permit entry of the brown rot. With good control of the insects and diseases, growing of nectarines is very rewarding for their delicious flavor makes them a very popular fresh fruit.

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	Parentage	Orig.	Introd.
New York 884	Big Boy × Schumaker (selfed)	N. Y. Sta.	
New York 1017	(Livingston × Greensboro) selfed	"	
Rivers Orange	Unknown	European	
Nectarose	(Garden State × (N. J. 7432))	N. J.	1947
Nectacrest	(Garden State \times (N. J. 7432))	66	1947

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Nectacrest—is a large, white-fleshed, freestone nectarine. The flesh is fairly firm and it has a fine nectarine flavor. This variety ripens about a week and a half before Elberta. The tree is vigorous and hardy.

Nectarose—is a white-fleshed, freestone nectarine of good quality. It is large and nearly covered with a dark red blush. It ripens about with Sunhigh. The tree is vigorous and productive.

New York 884—is our earliest nectarine and ripens with Mikado. Its fruit is medium, white-fleshed and a clingstone. It is recommended for trial due to its high quality, and hardiness.

Rivers Orange—is a yellow-fleshed nectarine which ripens in early midseason. The fruit is a freestone nearly covered with a dark red blush. No nectarine has a richer, sweeter flavor. This is one of the choicely good European sorts.

New York 1017—is a large, white-fleshed, freestone ripening about four weeks before Elberta. The flesh is firm, slightly coarse and juicy and the flavor is good. The tree is productive, hardy and upright in habit of growth. Care in pruning is necessary to avoid weak crotches.

PEACHES

New peach varieties are being introduced so rapidly that it is confusing to the grower to know just what kinds to plant. He must first know his market or outlet. If he is interested in a succession thruout the season, varieties are now available for such a purpose. The Association is propagating some of the more promising new kinds and these will be released from time to time. If possible a grower should have a small test orchard to determine the kinds best suited to his conditions.

VERY EARLY	Parentage	Whe re Orig.	Year Introd.
Erlyvee Dixired Prairie Dawn Coronet	Golden Jubilee (open pollinated) Halehaven (selfed) Valiant × Halehaven (Halehaven selfed) × Dixigem	Canada U.S.D.A. Ill. Sta. U.S.D.A.	1949 1945 1946 1953
EARLY			
Oriole Raritan Rose Jerseyland	Slappey × Dewey J. H. Hale × Cumberland 104325 [J. H. Hale × (Slappey × Dewey)] (ocp.)	N. J. Sta.	1925 1936 1946
Redhaven	Halehaven × Kalhaven	Mich. Sta.	1940
MID-SEASON			
Triogem Fairhaven Southland Sunhigh Summerrose Redrose Halehaven Veteran Kalhaven	J. H. Hale × Marigold J. H. Hale × South Haven Halehaven (selfed) J. H. Hale × (Carman × Slappey) J. H. Hale × Delicious J. H. Hale × Delicious J. H. Hale × South Haven Vaughan × Stark Early Elberta J. H. Hale × Kalamazoo	N. J. Sta. Mich. Sta. U.S.D.A. N. J. Sta. "Mich. Sta. Canada Mich. State	.1938 1946 1946 1938 1947 1940 1932 1928 1936
LATE			
Afterglow	J. H. Hale \times 27116 (Slappey \times Dewey)	N. J. Sta.	1938

Afterglow—is a large yellow-fleshed freestone which ripens a few days later than Elberta. It is a high quality peach which looks promising to extend the peach season.

Coronet—is a very attractive, yellow-fleshed, early peach. The quality is exceptionally good for its season which is four and one-half weeks before Elberta. This new variety appears to be vigorous and productive.

Dixired—is a highly colored early peach which ripens in the season of Mikado or about five weeks before Elberta. It is very firm for such an early peach and the quality is good. It is a clingstone. The tree is vigorous and productive.

- Erlyvee—is a very early yellow-fleshed peach. It ripens about a week earlier than Mikado and is a freestone when dead ripe. The size is small unless well thinned. The quality is good for such an early peach. Its main fault is that its skin is very tender and requires careful handling.
- Fairhaven—is in season about with Sunhigh or two and one-half weeks before Elberta. This yellow-fleshed freestone has very fine quality and is very attractive. The trees are vigorous and tend to over bear if not well thinned.
- Jerseyland—ripens about one week ahead of Golden Jubilee. The fruit is very dark red, yellow-fleshed and firm for an early peach. Reported as a freestone in New Jersey but clings at Geneva unless dead ripe. As hardy in bud as Redhaven and about the same season.
- Kalhaven—is an attractive medium sized, yellow-fleshed, freestone ripening about four days before Elberta. The quality is good and the flesh is firm enough to stand handling well. The variety sets fruit heavily and must be carefully thinned.
- Oriole—is in season about four weeks before Elberta. The tree is vigorous and productive. The fruit is medium to large in size, roundish, yellow, very good in quality, and a freestone. Its flesh has a greenish tinge that impairs its appearance. Oriole is notable for its hardiness.
- Prairie Dawn—is an early, yellow-fleshed clingstone, ripening about ten days before Redhaven. The quality is fair since the flesh is rather coarse and not very firm. It is, however, one of the hardiest yellow-fleshed peaches and is vigorous and productive.
- Raritan Rose—is a white-fleshed freestone peach. The fruit is large and round-oval in shape. It is well washed with red color and attractive. The flesh is of good quality and considerably firmer than that of Cumberland which it is designed to replace. It ripens a few days before Golden Jubilee. The tree is productive and hardy.
- Redhaven—is a highly colored, yellow-fleshed, freestone peach ripening a few days before Golden Jubilee or about with Oriole. It has good fruit quality and its flesh is very firm for an early peach. The trees set heavy crops and require early and thorough thinning or undersized fruit may result. The tree is vigorous and hardy. Redhaven is very slow to oxidize and excellent for freezing.
- Redrose—is another white-fleshed peach. The fruit, which ripens about ten days after Raritan Rose or just before Halehaven, is of good size, highly colored and of firm texture. Its quality is far superior to other white-fleshed peaches ripening in its season or earlier. This is a very productive variety.
- Southland—is a yellow-fleshed freestone of good quality, although the flesh tends to be slightly coarse. This firm peach stands handling well. It ripens just before Halehaven.
- Summerrose—is a large, attractive, white-fleshed freestone of high quality. It is in season about with Halehaven. The tree is vigorous and productive.

Sunhigh—is a large, highly-colored, bright, firm, smooth peach which ripens a few days before Halehaven. It is a freestone with attractive yellow flesh and its quality ranks among the best of the new peaches recommended for trial in New York. It is as hardy as Elberta.

Triogem—is a yellow freestone peach, oval in shape and ripens about two days after Golden Jubilee or three weeks before Elberta. The fruit is highly colored, has short pubescence and is very attractive. The flesh is firm and the variety stands handling much better than Golden Jubilee in addition to having much better quality. The trees are productive and require thorough thinning. Triogem is very good for freezing.

Veteran—is large, round, yellow fleshed, usually a freestone and far superior to Elberta in quality. The fruit freezes well. Since it ripens a few days later than Valiant, it makes a desirable sort to follow that variety. It is a productive variety and hardy in bud.

APRICOTS

It is recommended that at least two varieties be planted closely in order to induce better fruitfulness.

	Parentage	Where Orig.	Year Introd.
Doty New York 345	Unknown (Doty X Geneva) open pollinated	N. Y. N. Y. Sta.	1944
New York 346	(Doty × Geneva) " "	"	
Henderson Geneva	Unknown "	« «	1935
Geneva			1934

Doty—is named for Mr. Doty, formerly of Oaks Corners, N. Y. as the original tree grew on his place. Tree is very large, vigorous, hardy and productive. Fruit is medium in size, attractive, light golden yellow with few reddish markings, juicy, sweet, nearly free from fibre and very good in quality. Excellent for home and local markets.

Geneva—was grown from seed collected near Frascati, Italy. Sent out by U.S.D.A. as No. 34265. Fruit large, roundish, compressed, slightly pointed, yellow with a blush and dots; flesh yellow, fine-grained, firm, sweet, very good and free from the stone. Excellent reports have been received in regard to its productiveness and merit.

Henderson—has large, roundish, yellow and blushed fruit. The flesh is yellow, slightly fibrous, sweet and good in quality, and free from the stone. The tree is strong, vigorous and productive. This variety originated with the late George W. Henderson of Geneva, N. Y.

New York 345 and New York 346—these are sister seedlings very similar in all respects. Both are being offered in order to determine which is better when grown under varied conditions. They have both produced heavy crops since they were selected in 1949. The fruit is medium to large in size and attractive. Both are freestone and of very good quality. New York 346 is larger

in size and appears to be slightly more hardy in bud. It ripens a day or two later than New York 345. Slight cracking of the fruit of 346 occurred one year but it was less severe than with the variety Superb.

PEARS

To insure a full crop of pears, two or more varieties should be placed close together. Furthermore there are a few varieties which do not produce good pollen. Waite is the only pear of this type in the following list.

The Association is listing the following varieties in order of ripening season from early to late.

EARLY PEARS	Parentage	Where Orig.	Year Introd.
Chapin Early Seckel New York 7620 Caywood	Seckel (open pollinated) Bartlett × Marguerite Marillat Seckel (open pollinated)	N. Y. Sta. " "	$ \begin{array}{r} 1946 \\ 1935 \\ \hline 1938 \end{array} $
MID-SEASON New York 4885 Gorham Maxine Ewart Cayuga	Bartlett × Ewart Bartlett × Josephine deMalines Unknown Unknown Seckel (open pollinated)	N. Y. Sta. Ohio N. Y. Sta.	1923 1870 1917 1920
LATE Waite Covert Dana Hovey Ovid Beurre Dumont Alexander Lucas	Keiffer × Bartlett Bartlett × Dorset Unknown Bartlett × Dorset Unknown "	U.S.D.A. N. Y. Sta. Mass. N. Y. Sta. European France	1937 1935 1854 1931

Alexander Lucas—an attractive French winter pear of good quality that has never been widely disseminated. Fruit large, round-conic, yellow with a blush; flesh yellowish-white, fine, melting, juicy and aromatic. Desirable for dessert and culinary uses. Season November to January. This variety does not produce good pollen.

Beurré Dumont—known for more than a century in Europe and England but like some other choicely good European fruits it seems never to have been disseminated in America. The fruit is medium in size, altho often as large as Bartlett, round-conic, tapering to a short neck. It is greenish yellow, well covered with cinnamon brown, the russet being smooth and fine. The tree is moderate in growth and vigor and is productive. For a dessert pear in early winter this variety has few equals. The flavor is delectably sweet with a most delicious perfume — one of the best in quality.

Cayuga—averages as large as Bartlett, but in shape and color is similar to Seckel. The flesh is firm and fine in texture quite to the center, and possesses a delectable flavor. The tree grows tall and is slow in coming into bearing. May be advisable to head trees back.

- Caywood—resembles its Seckel parent in general characteristics, altho it is larger, rounder in shape, and considerably more russeted. Its claim for merit is in its splendid sweet highly aromatic Seckel flavor and the fine smooth light russet finish of the fruit. Its season is a little after Early Seckel.
- Chapin—is another seedling of Seckel that resembles its parent somewhat in general characteristics. The fruit is small and obovate in shape. Its color is similar to that of Cayuga but less russeted than Seckel. The flavor is very sweet, richly aromatic and excellent in quality. Ripens just ahead of Early Seckel and nearly a month before Seckel; its season is short.
- Covert—is one of the largest of all cultivated pears. It resembles Bartlett in shape with the same roughened surface and has about the same green color which mellows into a clear Bartlett yellow when fully mature. The fruit is two months later than Bartlett, very firm, and handles unusually well. Canning tests indicate that the canned product is almost if not quite equal to Bartlett and much better than Kieffer. The tree is a prodigious cropper. Covert bids fair to replace Kieffer for canning and for export.
- Dana Hovey—an old variety of delicious quality that should be grown in every pear-lover's orchard. Unfortunately it is no longer propagated and therefore a few trees have been grown for members. Fruit is about the size of Seckel and is equally rich in quality. It ripens in December when many of the high-quality pears have gone.
- Early Seckel—is exactly what its name implies—an early-ripening Seckel. The season is from 2 to 3 weeks ahead of Seckel but in cold storage the fruit can be kept longer than Seckel. The variety closely resembles Seckel in appearance and flavor, having the same delectable taste. It is unsurpassed for local and roadside markets.
- Ewart—comes from Mortimer Ewart, East Akron, Ohio. The fruit is remarkable for its large size and good quality. It is greenish yellow, netted with russet, and has a fine, melting, tender, juicy flesh. The season is a month later than Bartlett.
- Gorham—ripens its fruit 2 weeks later than Bartlett and keeps a month longer. The fruits resemble those of Bartlett in size, color, and shape. The flavor is sweet and vinous with a very marked and pleasing aroma. The flesh is white, tender, buttery, and juicy—a combination which, with the rich flavor and spicy aroma, makes this one of the very best-flavored pears of its season. Recommended for dessert and canning. Trees are not always reliable croppers.
- Maxine—has the best quality of the fire blight resistant varieties. It is productive and ripens from late September through October. The fruit is large, attractive yellow with a flesh which is slightly coarse, juicy, sweet mild flavor and of fair quality.

New York 4885—A large productive pear of the Bartlett type that ripens a little later. The flesh is white, fine grained, tender and juicy. The flavor resembles Bartlett but is not quite as good.

New York 7620—A seedling of Bartlett x Marguerite Marillat and is a high quality summer pear. It is productive and the fruit is of good size. It is an attractive yellow in color overlaid with some light russet. The flesh is fine, melting and juicy with a sweet and aromatic flavor.

Waite—seems to be outstanding as a blight-resistant pear. Under severe test conditions this pear has never developed more than about 10 percent as much blight as Kieffer. The fruit is of the shape and size of Bartlett and ripens with Kieffer. The flesh is smooth without grit cells, juicy, with more of an acid flavor than Bartlett but excellent for cooking and canning and fair for table use. The tree is a rather slender, willowy grower, of moderate vigor. The blossoms produce little or no pollen so cross-pollination is essential. Under favorable pollination conditions it sets well and is a heavy cropper.

DWARF PEARS

Pear trees are dwarfed when grown on a quince root system. The Association is growing a few trees of Early Seckel, Cayuga and Gorham on this dwarfing stock.

JAPANESE PLUMS

The Japanese varieties are mostly early, soft and juicy.

Nearly all Japanese varieties require cross-pollination. At least two different ones should be planted to insure a crop. Formosa has been reported to have pollen of low germinability and should not be selected as a pollinizer.

		Parentage	Where Orig.	Year Introd.
Shiro	Unknown		Burbank	
Formosa	Japanese		u	1907
Santa Rosa	- 4		u	1906

Formosa—is a Japanese plum recommended for its large attractive fruits. The plums are oval to slightly cordate, greenish yellow nearly overlaid with red; flesh firm, juicy, melting, pale yellow, sweet and good; stone slightly clinging; ripens in midseason. Tree is a biennial bearer.

Santa Rosa—is one of Burbank's noteworthy Japanese plums which in nearly all characters of tree and fruit surpasses Abundance and Burbank. The tree is a prolific bearer, and the large attractive fruits keep and ship well. Santa Rosa is one the best Japanese plums on the grounds of the Experiment Station at Geneva.

Shiro—is an attractive, yellow fruited plum of medium size. It ripens early and if allowed to properly mature is of fair quality. Thinning may be necessary to attain good size.

EUROPEAN PLUMS

The European plums make up the most important group and include the greatest variety of types and the highest quality sorts that we have.

Many European plums require cross-pollination. Even the varieties that are classed as self-fruitful may produce better crops when cross pollination is provided.

Early	Parentage	Where Orig.	Year Introd.
California Blue DeMontfort	Peach (open pollinated) Unknown	Calif. European	1909
MID-SEASON			
Utility Early Transparent Gage	Jefferson X Peach Transparent Gage Seedling	Eng. about	1915 1866
American Mira- belle	Imperial Epineuse × Mirabelle	N. Y. Sta.	1925
Pearl New York 981 Yakima Green Gage Pacific Hall	Prune d'Agen seedling Italian Prune × Prinlew Unknown " Golden Drop × Grand Duke	Burbank N. Y. Sta. Wash. France? N. Y. Sta.	1898 1922 ——————————————————————————————————
Imperial Epineuse Stanley LATE	Unknown Agen X Grand Duke	European N. Y. Sta.	1926
New York 826 Sannois Golden Trans. Gage	Albion × Italian Prune European Transparent Gage seedling	N. Y. Sta. European England	1894
Albion	Golden Drop × Grand Duke	N. Y. Sta.	1929

Albion—is the latest ripening good plum grown at Geneva. It belongs to the Grand Duke type, but its fruits are larger and better in quality. The tree is productive, strong, and vigorous. Recommended where a late plum is desired.

American Mirabelle—is a small, sweet, yellow Damson. The fruits resemble those of the European Mirabelle closely in color, but are much larger. The flavor is delightfully good and the new variety will be appreciated by all lovers of choicely good fruits to eat out of hand or for culinary purposes.

California Blue—an early-ripening, large, roundish, attractive purple freestone plum. Good in quality, altho slightly tart. Worthy of trial for home and early markets.

De Montfort—Old French, blue plum that deserves trial by lovers of highquality fruit. Fruit medium in size, roundish oval, and dark purple; flesh juicy, sweet, rich; freestone. Season late August.

- Early Transparent Gage—A dwarfish, compact tree. Fruit medium, greenish yellow with attractive red dots. Flesh yellow, freestone, very sweet and of the highest Gage flavor. Good for dessert, excellent for jam and for canning and usually a reliable cropper.
- Golden Transparent Gage—A choice, late dessert plum. Fruit is clear goldenyellow with a number of small red dots. Flesh firm, very sweet with rich Gage flavor.
- Green Gage—Considered by Europeans to be the ideal dessert plum. Fruit small, yellowish green of rich flavor but crops are light and uncertain.
- Hall—is a large, attractive, blue plum. The fruits are so attractive and well flavored that they will sell in any market. In color it resembles the Grand Duke. Tree is productive and medium in size. Requires pollinator.
- Imperial Epineuse—is an old French prune. Fruit is reddish purple, tender, sweet, juicy, and highly flavored. Requires cross-pollination.
- New York 826—Obtained in 1937 from a cross between Albion and Italian Prune. A high quality, self-fruitful, freestone, prune-type plum that ripens at Geneva the last week of September. The fruit is slightly oval, with an attractive blueblack bloom on a dark red under-coat. The light greenish amber flesh is firm and crisp with a sweet and very good flavor. Preliminary observations indicate that this plum may prove to be a valuable late prune-type to follow Stanley.
- New York 981—a good quality freestone plum, ripening the first week of September at Geneva. The oval shaped fruit is reddish-blue in color and of medium to large size. The yellowish flesh is firm and juicy. It has shown a slight tendency towards cracking in some years.
- Pacific—is a very large, bluish-colored, freestone plum of good quality. Some years its crop is light and during wet seasons it may crack. Size and appearance should command a ready sale.
- **Pearl**—is a medium-sized yellow plum originated by Luther Burbank. Its quality is exceptionally sweet and rich. Recommended for the home garden. Tree is only moderately productive.
- Sannois—is a very late reddish purple French plum of medium size. It is one of the sweetest and most delectable varieties of all the plum family. Recommended for the home garden.
- Stanley—The fruit is of the prune type, excellent for cooking or eating out of hand. The tree is healthy, vigorous, and produces full crops annually. The fruit is large in size, dark blue with thick bloom; flesh greenish yellow, juicy, fine-grained, tender, firm, sweet, pleasant; quality good; stone free; midseason. This variety is becoming a valuable commercial variety.
- Utility—originated by Thomas Laxton, England, by crossing Jefferson with Peach and introduced about 1915. Fruit large, almost oval, deep cyclamen purple with bloom; flesh tender, juicy, sweet and fair flavor for dessert. Season mid-August.

Yakima—a very large, prune-shaped, purplish red, freestone, good-quality plum.

Tree is vigorous and upright.

AMERICAN-JAPANESE HYBRIDS

Native or American types are hardy but cannot compare in quality with other types. Hybrids between Japanese and American plums are superior to our native sorts and are hardy in cold regions. They can be grown where the more tender sorts are winter killed.

	Parentage	Where Orig.	Year Introd.
Redcoat	Abundance × Wolf	Minn. Sta.	1942
Superior	Burbank × Kaga	44	1933?
South Dakota	Unknown	ec	

Redcoat—The fruit is medium in size, bright crimson with heavy bloom. The flesh is yellow and mildly subacid. The tree is hardy, vigorous, productive and early bearing. The season is early, closely following California Blue.

South Dakota—has proven to be an excellent pollenizer for the American-Japanese hybrids. The fruits are small to medium size, attractive red over yellow ground. Flesh is yellow and juicy. Season is late mid-season.

Superior—Fruit is large conic, dark red with russet dots and with a heavy and rather attractive bloom. The flesh is yellow, juicy with sprightly flavor and slightly acid toward skin. It clings to the pit. The season is late mid-season.

GRAPES

The Geneva Experiment Station has introduced over 25 varieties of grapes. Many of them have proved of merit in New York State and in other grapegrowing areas throughout the United States. Some of the most promising seedlings have been found too tender to withstand test winters that occasionally occur, or too susceptible to certain diseases as the mildews and black rot. Reports on the performance of any of the introductions is solicited for it forms the basis of our recommendations.

GRAFTED GRAPES

We are becoming increasingly aware of the probable destructive action of certain soil inhabiting organisms on the roots of many of our grape varieties. For this reason the Association has undertaken to propagate and distribute the more susceptible varieties on phylloxera resistant rootstocks. These grafted grapes will usually give more vigorous vines and hence be more productive than self rooted vines. This is especially true if planted on old vineyard sites or near established grapes.

All grafted vines are not equally adapted to all soils. We suggest stock 3306 for heavy textured soils and 3309 for sandy and gravelly soils. The varieties available on these stocks are listed in our price list.

VERY EARLY Schuyler Interlaken Seed- less Himrod Seedless Van Buren Portland Ontario	Parentage Ontario × Zinfandel Ontario × Thompson Seedless " " " Fredonia × Worden Champion × Lutie Winchell × Diamond	Where Orig. N. Y. Sta. " " " " " " "	Year Introd. 1947 1947 1952 1935 1914 1908
Seneca Seibel 5279 Seibel 13047 Seibel 13053	Lignan Blanc X Ontario French Hybrid " " "	France "	1930
EARLY Athens Buffalo Kendaia Fredonia	Hubbard × Portland Herbert × Watkins Portland × Hubbard Champion × Lucille	N. Y. Sta.	1938 1938 1939 1927
MID-SEASON Romulus Seedless New York 12997 Concord Seedless Bath	Ontario × Thompson Seedless Muscat Hamburg × Ontario Concord sport ? Fredonia × Sta. 10805 (Chasselas Rose	и и и	1952 —— 1952
Baco No. 1 Seyve Villard 5-276	Violet × Mills) French Hybrid " " "	France "	
Seibel 10878 Seibel 10868 Alden Steuben Naples	Ontario × Grosse Guillaume Wayne × Sheridan Delaware × (Mills × Iona)	N. Y. Sta.	1952 1947 1952
LATE Sheridan Ruby New York 15302 Yates Golden Muscat	Herbert × Worden Keuka × Ontario Ontario × Thompson Seedless Mills × Ontario Muscat Hamburg × Diamond	N. Y. Sta.	1921 1938 ————————————————————————————————————

Alden—An Ontario by Grosse Guillaume cross. Vine vigorous and productive; clusters large, tapering, loose; berries large, oval, reddish black; flesh juicy, meaty, tender, sweet and vinous; quality good. Season end of September. Slight cracking occurred during one wet season. Due to large size, pleasing texture and quality, this grape is deemed well worthy of trial for the home and local markets. Requires short pruning.

Athens—is a promising black grape of the Concord type that ripens about a month earlier. Vine very vigorous, hardy, and very productive; bunches medium to large, loose and tapering; berries larger than the Concord, roundish oval, black with a heavy bloom; skin tender; flesh tough, sweet, slightly foxy, good quality. Well worthy of trial as an early black grape of the Concord type.

- Bath—Obtained from a cross between Fredonia and Sta. #10805 (Chasselas Rose Violet x Mills). Vine vigorous and productive: cluster medium in size and compact; berry medium, round oval, black; flesh tender, juicy, sweet, free from foxiness; quality good; season last week in September. Vines are liable to overbear unless more severely pruned than the Concord.
- Buffalo—is an early black grape ripening first week in September, and is suitable for dessert and wine. Vine is vigorous, slightly tender, but very productive; clusters medium plus, tapering, medium compact; berries medium, roundish oval, adherence strong; flesh juicy, melting, very sweet, slightly foxy, pleasing, good.
- Fredonia—is a good early black grape. The vine is vigorous, hardy, and productive if not pruned too severely. Clusters are medium in size, cylindrical, and compact; berries are large, and round; skin is thick and tough; flesh is juicy, solid but tender; very good. Fredonia has become our leading early black grape.
- Golden Muscat—was named for its color and muscat flavor. The vine is vigorous, productive; the clusters are very large, tapering, single-shouldered, and compact; the berries are large, oval, juicy, tender, sweet, vinous and aromatic. Requires season about 10 days longer than that of Concord.
- Kendaia—is an early black that ripens about with its sister Athens. The vine is very vigorous, hardy and productive. Clusters are medium to large, shouldered and fairly compact; berries large as Concord, similar in color, roundish, oval and persistent; skin medium thick and tough; flesh juicy, sweet with a pleasing aroma and good. Recommended for those areas with a short season.
- Naples—A productive red grape derived from a cross between Delaware and a (Mills x Iona) seedling. Clusters are larger and less compact than those of the Delaware and berries are larger and have a tougher skin. Fruit has appearance and flavor of Delaware but ripens one or two weeks later. Flesh is slightly tough, juicy, sweet and good in quality. Promising for table and wine.
- New York 12997—is a reddish black grape ripening at Geneva in the middle of September. It has a fine muscat flavor and excellent dessert quality.
- Ontario—comes in season before its parent Winchell, hitherto the best early green grape. Bunches and berries are larger and more attractive in appearance, and its vines are more vigorous and more productive. Ontario and Portland are becoming the standard early green grapes in eastern America.
- Portland—holds first place among grapes as an early green variety for the market. The vine is very vigorous, hardy, productive and healthy. The variety is remarkable for its luxuriant and persistent foliage. Bunches and berries are larger than those of any other early green grape. In soils where

vine lacks vigor, Portland should be grafted onto Clinton or other vigorous stocks.

Ruby—is an attractive red grape that ripens about the last week of September. Vine is vigorous, hardy and productive; clusters medium to large, tapering, shouldered, fairly compact with medium roundish oval berries; flesh juicy, tender, almost melting, sweet with a very agreeable and pleasing vinous flavor; skin has enough thickness and toughness to make it an excellent keeper. Promising for both home and commercial use.

Schuyler—has large, cylindrical and well filled clusters. The fruit ripens to a blue-black color at Geneva about September 5 or more than three weeks before Concord and has an attractive, heavy bloom. The skin is tough enough to withstand handling but is not objectionable from the standpoint of eating since it is not a "slipskin" variety. The flavor is sweet with a vinous tang resembling that of Zinfandel. Schuyler bears heavily on spur and sucker shoots and must be pruned more closely than most American varieties to avoid overbearing. The foliage is susceptible to downy mildew and requires thorough spraying to control this pest. The vine is less hardy than many American varieties but compares favorably with Seneca, Golden Muscat and Dutchess. Temperatures of —20°F have injured the wood of this variety.

Seneca—is almost a pure vinifera, ripening with Ontario. The bunches are of medium size, tapering, compact; berries oval and yellow. The texture is firm like that of a true vinifera, melting and tender, while the flavor is sweet, vinous, and aromatic. The skin can be eaten with the berry. The vine is vigorous and productive. Seneca is highly recommended for dessert. Requires spraying to prevent mildew.

Sheridan—is a promising late-keeping grape to extend the season of Concord. Its vine is vigorous, healthy, hardy, and productive; its bunches large and compact; its berries firm and large; and its flavor sweet and rich. Season a week later than that of Concord. Sheridan is popular where it ripens.

Steuben—appears to have real commercial possibilities for eastern grape growers. Its blue black fruit ripens a day or two after Concord or October 1st at Geneva. It bears long tapering clusters which are compact and often shouldered or double. The berries are of medium size and have a very heavy bloom. The flavor is sweet and free from foxiness but has a distinctive spicy tang. The skin is tough and the variety keeps very well in cold storage. The vines are vigorous, productive and hardy. A full crop of fruit was borne by Steuben in 1943 after exposure to —20°F the preceding winter. Blackrot has been reported in areas subject to this disease.

Van Buren—most promising, very early, black grape introduced. Cluster medium to above, compact; berry little smaller than Concord, and equal if not superior to Concord in quality. For roadside markets and home, it should prove most valuable.

Yates—is a promising red grape. Vine is vigorous, productive; clusters large, conical, medium compact; berries large, attractive, medium red; flesh juicy, nearly melting, sweet, vinous, pleasing, good. Ripens after Concord. Well worthy of trial for table and wine use.

SEEDLESS GRAPES

Dr. A. B. Stout, formerly of The New York Botanic Garden, has cooperated with The New York State Agricultural Experiment Station for over 30 years in the breeding of seedless grapes. One of the best parental types for giving seedlessness, as well as good quality, is the Sultanina (Thompson Seedless of California). Stout Seedless, the first to be introduced, has been discontinued as it was frequently winter injured. Sultanina crossed with Ontario gave the Interlaken Seedless, Himrod and Romulus.

Concord Seedless—probably a sport of the Concord. Fruit resembles Concord in color and flavor but the clusters and berries are small. Occasionally seed is present but usually berries are seedless. Highly regarded by many as a pie grape.

Himrod Seedless—a sister seedling of Interlaken Seedless, ripening slightly later. Its clusters are large and rather loose; berries medium, oval, sweet, yellow, vinous and good. Variety being sent out for trial as its vine has been hardier than Interlaken Seedless and its clusters larger.

Interlaken Seedless—is a promising seedless grape for the eastern United States. Its medium sized clusters are well filled with berries about the size of Delaware. The fruit ripens to a rich golden yellow color. At Geneva it ripens about September 1 or a full month before Concord. The fruit is very sweet and the flavor blends that of Ontario and Thompson Seedless. The flesh is meaty and crisp and adheres to the skin. The vine compares favorably with that of Golden Muscat, Seneca, and Delaware in hardiness. Temperatures of —20°F may be expected to injure the wood of Interlaken Seedless.

New York 15302—is another white "seedless" sister of Interlaken, Himrod and Romulus. It has large, well filled clusters; berries are medium and above in size; the quality is good; seeds are somewhat noticeable.

Romulus Seedless—another sister ripening about two to three weeks later than Interlaken Seedless. Vine productive; clusters large, compact; berries small, yellow, sweet vinous non-foxy flavored, quality good.

FRENCH HYBRID GRAPES

These grape varieties have received increasing attention in recent years. A great many different numbers are now available from certain nurseries that specialize in them. They are productions of such famous French hybridizers as Seibel, Seyve-Villard, Ravat, and Baco. Many of these grapes are wine types and not suited for dessert use; some of them have good table quality. The Association is offering a few early-maturing sorts that have shown promise in tests in New York State.

- Baco No. 1—very vigorous and disease resistant. Good for red wine, juice or jelly. Excellent for arbor. Long pruning.
 - Seibel 5279—is a very early, white-pinkish wine grape. It is vigorous and productive but subject to black rot. Requires long pruning. The pulp is soft and of pleasant flavor.
- Seibel 10868—vine of medium vigor, white grape. Clusters medium to large, berries medium. Promising for wine. Concord season.
- Seibel 10878—vigorous, productive, black grape. Good red wine. Ripens week before Concord.
- Seibel 13047—early and productive. White wine of good quality. Also has table grape quality.
- Seibel 13053—very early blue, vigorous, hardy and resistant.
 - Seyve-Villard 5-276—is a mid season, white variety of medium vigor and good disease resistance. It makes a good white wine. Requires short pruning.

BLUEBERRIES

The following varieties are recent U.S.D.A. introductions. They have been selected for large size of berry, better quality and higher yield. More extensive trials are needed under varied conditions for their complete evaluation, but they appear to be superior to the older varieties.

EARLY	Parentage	Where Orig.	Year Introd.
Earliblue	Stanley × Weymouth	U.S.D.A.	1952
MID-SEASON			
Blueray	G.M. 37 (Jersey × Pioneer) × C.U5 (Stanley × June)	"	1955
Bluecrop	G.M. 37 (Jersey × Pioneer) × C.U5 (Stanley × June)	u	1952
Berkeley	Stanley × G.S149 (Jersey × Pioneer)	<i>u</i> -	1949
LATE			
Herbert	Stanley \times G.S. 149 (Jersey \times Pioneer)	"	1952
VERY LATE			
Coville	G.M. 37 (Jersey \times Pioneer) \times Stanley	"	1949

Berkeley—has the largest berry of all and is good in quality. It ripens 15 days after Earliblue. The bush is very vigorous, spreading and productive.

Bluecrop—ripens 13 days after Earliblue. It should be tried because of its unusual productiveness, its attractive color, firmness and high quality. It may overbear unless properly pruned.

Blueray—is a productive second-early, ripening about one week after Earliblue. The plants are exceptionally vigorous and the berries are very large, firm, light blue and highly flavored. Recommended for trial for northeastern states.

Coville—is the latest of all to ripen, coming 30 days after Earliblue. The bush is very vigorous, producing heavy crops of large berries. The quality is good when fully ripe.

Earliblue—one of the earliest to ripen and superior to Weymouth in vigor, size, color, firmness and quality of fruit. It should be tried by all who want an extra early variety.

Herbert—ripens 25 days after Earliblue and just after Jersey. It is promising as one of the best in size, firmness, quality and productiveness for a late variety.

RASPBERRIES

The Station has introduced several new raspberries which in some respects are definitely superior to the standard sorts in the trade. All of the following are offered as well worthy of trial for the purposes indicated.

B-black, P-purple, R-red, Y-yellow

Very Early and Fall Bearing	Parentage	Where Orig.	Year Introd.
September R	Marcy × Ranere	N. Y. Sta.	1947
MID-SEASON			
Newburgh R	Newman × Herbert	N. Y. Sta.	1929
New York 17861 R Sodus P	Newburgh X Ind. Summer Dundee X Newburgh	66	1935
Bristol B	Watson No. 1 × Honeysweet	u	1934
Dundee B	Smith No. 1 × Palmer Newman × Lloyd George	66	1927 1935
Taylor R LATE	Newman X Lloyd George		1900
Marion P	Bristol × (Newman × Herbert)	"	1937
Milton R Amber Y	Lloyd George X Newburgh Taylor X Cuthbert	"	1942 1950

BLACK RASPBERRIES

Bristol—is one of the best black raspberries being grown at Geneva. In season it is a week earlier than Naples, which makes it a good variety to plant with that sort to lengthen the season. The berries are large, firm, fairly glossy, attractive, and of excellent quality. The bushes are hardy, vigorous, and bear very heavy crops. Bristol is worthy of extensive trial for market and home use.

Dundee—is a promising new black raspberry notable for its high quality. The berries are large, glossy black, attractive, moderately firm, mildly subacid and very good. The plants are tall, vigorous, productive, and moderately resistant to mosaic. Dundee is well worth trying for market or home use.

RED RASPBERRIES

Milton—is a late variety for market and home use. The berries are large, long conic, resembling those of the Taylor in size and shape. They are attractive, bright red, firm, not crumbling, mild subacid and good. It ripens two or three days later than Taylor and Latham. The plants are vigorous, productive and hardy. Milton has remained free from mosaic, in a test planting, in the Hudson Valley where numerous other varieties soon become infected. This freedom from mosaic is an important reason why the seedling was named and introduced for more extensive testing by growers.

Newburgh—is proving to be a very satisfactory berry for market purposes. The fruit is very large, very firm, and does not crumble. The color is a bright, attractive red; in keeping and shipping quality it has no superior. The plants are vigorous, hardy and very productive, the weight of the fruit is so great that the canes are often bent to the ground. The fruit is borne out in the open where it may be readily picked. Under average conditions such as prevail in central and western New York, mosaic is rarely serious in Newburgh. In season it is three or four days earlier than Cuthbert. The canes should be cut back about one fourth to one third at the regular dormant pruning in early spring, since this variety tends to overbear if not cut back. This should improve the picking quality somewhat.

New York 17861—is a very large, very productive, firm mild-flavored, midseason red raspberry that is deserving of trial as a market berry. The canes may need support because of the heavy crop.

September—a new autumn fruiting red raspberry. Was offered in 1947, for the first time. The fall crop begins ripening in early September or about a month earlier than Indian Summer and continues until frost. The summer crop is as early as Indian Summer. The berries are of medium size, or about as large as Latham, bright red, firm, not crumbling, but showing a tendency to cling to the torus until fully ripe. The quality is fair in the summer and good in autumn. The plants are vigorous, healthy, hardy and productive at Geneva. This variety is introduced for trial for home use.

Taylor—is offered for trial for both market and home garden. The plants are usually vigorous, hardy, productive, tall growing, and increase rapidly. Taylor is more subject to mosaic than Newburgh, and the necessary control measures for that disease should be followed. The sturdy canes hold the berries well off the ground. The berries ripen shortly before Milton and are subacid and of excellent quality.

Amber—is a new amber colored raspberry. The berries are large, long conic in shape, medium firm with a large cavity. They are sweet and very good in quality. It is the latest to ripen, beginning after Milton. The plants are very vigorous, being the tallest of any variety. Very little winter injury has been observed here at Geneva.

PURPLE RASPBERRIES

Marion—introduced in 1937, as a very large, late, purple raspberry to follow Sodus. The berries are very large, holding up well in size through the season, moderately juicy, firm, tart, and good in quality. They tend to cling to the bushes, but not sufficiently to be seriously objectionable. Marion ripens about a week later than Sodus and will serve to prolong the season for berries of that type. The plants are vigorous, bear heavy crops, are hardy and resemble the red raspberry more than the black raspberry in appearance. Propagation is by tip layering although a few suckers are produced.

Sodus—this variety is the most promising new purple raspberry on the Station grounds. It originated from the cross between the Dundee black raspberry and the Newburgh red raspberry. The berries are very large, firm, medium purple in color, sprightly and good in quality. The plants are very vigorous, very productive, and hardy. Sodus is more resistant to drought than Columbian and yields a good crop every year. It ripens shortly after Latham. This variety has replaced the Columbian, our former standard variety.

BLACKBERRIES

Blackberry varieties that are available have been generally unsatisfactory. These three new varieties, as grown at Geneva, appear to have sufficient merit to warrant their introduction for more extensive trial for market and home use.

Blackberry	Parentage	Where Orig.	Year Introd.
New York 24338- Hedrick Bailey	15826 (Eldorado × Brewer) × Hedrick Eldorado × Brewer Unknown	N. Y. Sta.	195 ₀ 195 ₀

Hedrick—Plants are vigorous, productive and hardy. Berries large, medium firm with no core; flavor subacid. Season is late July.

Bailey—Plants are vigorous, productive and hardy. The berries are somewhat larger than Eldorado, moderately firm, without core, subacid and of good quality. The season is early August about one week later than Hedrick. Offers promise as a commercial variety.

New York 24338—is a vigorous productive, mid-season berry that appears superior in most respects to other varieties and selections now being grown at the Station.

STRAWBERRIES

The following new strawberry varieties from the breeding work at Geneva have shown considerable promise at Geneva and elsewhere and are considered worthy of extensive testing for the purposes indicated in the descriptions.

Variety	Cross	Where Orig.	Year Introd.
Essex	Howard (Premier) X Deutsch Evern	N. Y. Sta.	1951
New York 418	Midland X Suwanne	"	1001
Empire	Dresden × Sparkle	4	1951
New York 386	U. S. 2827 (Dorsett \times U. S. 367) \times self	44	
Erie	Sparkle X Howard	ш	1951
Eden	Dresden × Fairfax	46	1952
New York 96	Erie X Sister Seedling	46	

Essex—Plants vigorous, moderately productive, and producing runners freely. Berries medium size, soon becoming small, light red, glossy, blunt wedge conic; skin tender; flesh red, soft, subacid, good, ripening 5 days or more before Howard (Premier). Principal merits of this variety are unusually early and good quality. Its faults are small size and tender skin. This is suggested for trial for home use to lengthen season for home garden strawberries of superior quality.

Empire—Plants are vigorous, heavy yielding and produce runners freely. Berries are large, maintaining size well, conic to wedge conic, very glossy light red; flesh light; skin slightly tougher than Howard (Premier) and quality better. Ripens 4 to 6 days after Howard.

Principal merits of this variety are productiveness, unusually attractive appearance, large size: Its faults are light flesh color and not suitable for processing. Suggested for market and home use.

Erie—Plants vigorous, heavy yielding and producing runners freely. Berries large, maintaining size well, conic, bright medium red; skin medium tough; flesh red, quality equal to Howard (Premier) and ripening 5 to 8 days later. Principal merits of this variety are heavy crop, attractiveness, lateness, large size. Its fault is lack of high quality. Suggested for trial for market where a late sort is desired.

Eden—Plants vigorous, productive and producing runners freely. Flowers well above foliage and fruit held off ground to some extent. Berries large, maintaining size well, wedge conic medium red, glossy; skin tough; flesh deep red to center, firm, tart, fair to good, ripening with or slightly before Sparkle. Its principal merits are tough skin, firm flesh, large size and productiveness. Tests at Geneva indicate superior freezing quality. Processor tests indicate suitability for preserving and canning. Suggested for trial wherever a processing berry is wanted. Probably suitable for many fresh fruit markets.

New York 96—is a large, attractive, late ripening good quality selection. It is the equal of Sparkle for freezing and is considerably superior in size. This selection deserves trial for home and market.

New York 386—is a high quality, attractive, productive selection ripening in mid-season. It is recommended for trial for home use and market.

New York 418—is a very early and productive selection. It is recommended for trial for early market and home use.

FILBERTS

All varieties of filberts are self-unfruitful so ample provision for cross pollination by including two or more varieties in any planting is recommended. At least one of these varieties should have hardy catkins.

Cosford—Nuts are of medium size and are the thinnest shelled of all varieties. The tree is vigorous hardy and productive. Catkins are hardy.

Medium Long—The nuts are slightly larger than those of Cosford and the shells are of medium thickness. The tree is vigorous, hardy and productive and the catkins are moderately hardy.

Italian Red—Nut large, pointed, with medium thick shell, good in quality, tree very vigorous and one of the most productive. Catkins are moderately hardy.

CURRANTS

Stephens #9—a recent introduction distributed by The Central Experimental Farm, Ottawa. Bushes are vigorous, productive and somewhat spreading, clusters are medium to large and compact. Fruit large and of good quality, less acid than some. Ripens in midseason and has done well at Geneva.

GOOSEBERRIES

In order to find better gooseberries, the Experiment Station at Geneva has tested many varieties. Fredonia and Poorman have proven to be the two most outstanding.

EARLY MID	-SEASON	Parentage	Where Orig.	Year Introd.
Poorman	Unknown		Utah	1896
LATE Fredonia	Unknown		N. Y. Sta.	1927

Fredonia—is a very large, late, dark red gooseberry of the English type. The fruit is good in quality and attractive in appearance, and keeps and ships well. The plants are vigorous, productive, and of an open habit of growth that makes harvesting easy. Every garden should have a few Fredonias.

Poorman—possesses the highest quality of fruit and one of the largest, healthiest and most vigorous bushes of any variety in the Station collection. The fruit is large, red, and very attractive. The plants are productive. This is a splendid gooseberry in heavy soils.

ELDERBERRY

The elderberry of the fields and fence-rows has always been popular for pies and home-made wine. It grows readily under domestication as a beautiful ornamental and is as easily improved in the breeder's hand as any other native fruit.

Adams—is a selection made by the late William W. Adams, Union Springs, N. Y. In the past a mixture of two clones of Adams has been grown because the original clone was thought to be self-unfruitful. The Association has now separated these clones and will designate them as Adams #1 and Adams #2. Adams has a strong, vigorous and productive plant and the fruit clusters and berries are exceptionally large. The only difference between Adams #1 and Adams #2 is that #2 is more vigorous and the stems tend to be more reddish in color, late in the season.

It is suggested that when ordering, at least one plant of each be ordered to insure proper pollination.

POINTS TO CONSIDER BEFORE PLANTING

- SOIL—Most kinds of fruit thrive best on deep, well drained and friable soils. Pears and plums will grow better on heavy soils, while the peach, cherry and strawberry prefer a lighter soil type.
- AGE OF TREES—The youngest plant available will transplant best. One year peaches and sweet cherries are most satisfactory and either one or two year trees of apples, pears and plums may be planted. Older trees do not have any advantage.
- TIME TO PLANT—Fall planting is favored for most fruits except in the colder areas. Spring planting is preferred for peaches as they may be winter-injured when planted in the fall.
- AIR DRAINAGE-Avoid frost pockets.
- HARDINESS—The degree of cold that causes injury depends on variety and maturity of plant. Fruit buds of peach may be winter-injured at -10 to -15°F., sweet cherries at -20°F., pears at -25°F., and grapes at -15° to -25°F.
- POLLINATION—It is considered good insurance to have at least two or three compatible varieties in the same planting. This is true of all tree fruits, except the self-fruitful peaches.
- SELECTION OF VARIETIES—This depends on the length of season to ripen the fruit, the resistance to cold and the use for which the fruit is desired. Such varieties as Eden strawberry, Milton raspberry and Redhaven peach are excellent varieties for freezing.
- LANDSCAPE VALUE—Most fruits can be used in the background as ornamentals and at the same time produce some fruit for home use. Raspberries, blackberries, grapes, elderberries and filberts make excellent hedges. Currants, gooseberries, blueberries and Tomentosa are fine for border plantings. Tree fruits can be planted about the grounds as specimen trees. Ornamental crab apples and dwarf fruits are especially desirable for this purpose.
- TIME OF BEARING—Small fruits require two years, grapes and peaches three to four years, plums and cherries five years, apples and pears five to eight years depending upon variety. Apple and pear trees on dwarfing rootstock bear two to three years earlier than when growing on a standard seedling rootstock.

SP.	ACING TO PLANT—		No. Plants
	Fruit	Spacing	per Acre
	Apple—standard	35×35	35
	on Malling II	20×30	72
	" " " VII	15×25	116
	« « « IX	10×20	218
	Pear	30×30	48
	" —dwarf	10×20	218
	Cherries, peaches, apricots, nectarines	25×25	70
	Plums	20×20	108
	Grapes	8×10	545
	Red raspberries and blackberries	2×8	2716
	Black and purple raspberries	3×8	1814
	Currants, gooseberries, elderberries, blueberries	5×10	871
	Filberts	15×15	198
	Strawberries	$2 \times 3\frac{1}{2}$	6225

PLANTING TIPS

- **CARE ON ARRIVAL**—If soil is not ready, heel the plants in moist soil in a shady spot. If roots are too dry, soak overnight in water.
- HOW TO PLANT—Dig a hole large enough to allow all roots to be placed in their natural position. Cut back tips of broken roots. Set slightly deeper than they were in nursery. Place top soil around roots and pack firmly. Water will help the plant to start quicker. Set berries the same depth as they grew in the nursery.
- PRUNING—It is important to cut back the tops to about one-half their length, leaving two or three well spaced branches and a leader. Care should be taken to make cuts to an outside bud and to avoid narrow crotches. One year old trees may be cut back to a whip at a point where the branches are desired. Prune grapes to two buds.
- **CULTIVATION**—Young trees respond well to cultivation until August when a cover crop should be sown. Heavy mulch of straw, sawdust or grass can also be used.
- PROTECTION FROM RODENTS—Protect young trees with 1/4" mesh wire guards 11/2 ft. high and 6" in diameter. Mounding with sand or cinders may be helpful. Poison bait applied in the fall is recommended.
- FERTILIZATION—Well prepared and fertile soil will need no fertilizer the first year. Then ¼ lb. of nitrate of soda or it's equivalent should be applied for each year of it's growth, spreading it under the tree but away from the trunk.
- SPRAY—Send for bulletin E812 to the address below.

For additional information write The New York State Agricultural Experiment Station, Geneva, N. Y., and ask for their list of publications.

Nursery stock purchased from our Association is guaranteed to grow if the plants are given good care. See planting tips above for suggestions. If losses do occur they must be reported before August 1st following planting.

FRUITS NOT PATENTED

The named fruits in this catalog are not patented. Members of the New York State Fruit Testing Association are asked to propagate and distribute them to the uttermost.

In the words of the old English herbalist then.

"......forward in the name of God, graffe, set, plant and nourish vp trees in every corner of your grounds, the labour is small, the cost is nothing, the commoditie is great, your selves shall have plentie, the poore shall have somewhat in time of want to relieve their necessitie, and God shall reward your good mindes and diligence."

John Gerard, The Herball. 1597